

U.S. Patent Application Serial No. 09/975,396
Reply to Office Action dated March 23, 2005

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 15 and 16 are hereby amended. Amendments of claims 15 and 16 are supported by subject matter of claim 1. As the features in claims 15 and 16 already have been considered relative to claim 1, the revisions do not create new issues and this Amendment should be entered.

Claims 15 and 16 were rejected as being anticipated by Yoshida (US 6,498,330). Applicants traverse this rejection. Claims 15 and 16 track with the subject matter of claim 1, which was not subject to this rejection, therefore the rejection is rendered moot.

Further, Yoshida does not suggest a first light (P3) with a larger amount of light and a second light (P1 or P2) with an amount of light smaller than the amount of the first light (P3), as required by claims 15 and 16. While Yoshida discloses the size of the first light (spot P3) as being equal to a combined size of spots P1 and P2, and the area of photodetector 7e (corresponding to spot P3) being larger than that of 7c (corresponding to spot P2), applicants contend that area is not relevant to the amount of spots P1, P2, or P3 (see Figure 3(c) of the reference).

Even further, the invention of claims 15 and 16 provide a returning light reflected by the information storage medium that is divided into a first light (with a larger amount of light) and a second light (with a smaller amount of light), where the first light is used for reproducing information and the second light is used for detecting aberration of the light. Reproducing information requires high frequency signals, while detecting aberration requires low frequency signals. It is most efficient to use the first light, of a larger amount, for reproducing information and the second light for detecting aberration (see page 15, line 28 to page 16, line 13).

Favorable reconsideration of claims 15 and 16 is requested.

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Claims 1, 15, and 16 were rejected as being anticipated by Wals (US 6,399,932). Applicants traverse this rejection. Wals does not suggest a first light (sub-beam 34) with a larger amount of light and a second light (sub-beam 33 or 35) with an amount of light smaller than the amount of the first light (34), as required by claims 1, 15, and 16. The Examiner contends that it is inherent that the first light (34) has a larger amount of light than the second light (33 or 35). Applicants respectfully traverse this view. A ratio of a light amount of the zero order diffraction light (34) with respect to that of the +/- first order diffraction light (33 or 35) can be changed according to the design of the diffraction grating. For example, when setting a depth of a groove of a diffraction grating to be $(n-1) \cdot \lambda/2$, where a refraction index is n and a wavelength is λ , a light amount of the zero order diffraction light can be suppressed to be substantially zero compared with a light amount of the +/- first order diffracted light. Wals does not suggest a particular depth of a groove, nor does the reference suggest any certain relationship between the amounts of light of the divided light beams.


In order for an element or property to be inherent, the element must always be present or property be the same. The disclosure of Wals fails to provide the specific details that would allow one to determine the relative amounts of the first and second lights, and as noted above it cannot be assumed that the first light (34) amount always would be larger than that of the second light (33 or 35) amount. Therefore, Wals does not inherently teach the claimed relationship between the two light amounts.

Favorable reconsideration of claims 1, 15, and 16 is requested.

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In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612)455-3804.

Respectfully Submitted,



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